SHARP

M30

SERVICE MANUAL/SERVICE-ANLEITUNG/MANUEL DE SERVICE

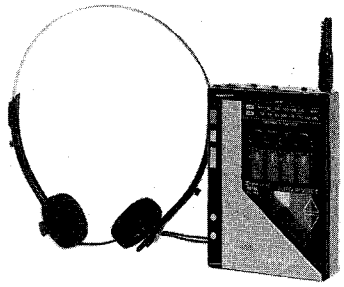

PHOTO: JC-786H(R)

S5593JC-786HR

JC-786H(R)
JC-786H(BL)
JC-786H(BK)
JC-786E(R)
JC-786E(BL)
JC-786E(BK)

DOLBY SYSTEM ®

- Noise reduction system manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.
- Geräuschunterdrückungssystem unter Lizenz von Dolby Laboratories Licensing Corporation hergestellt. Das Wort "Dolby" und das Symbol des doppelten D sind die Warenzeichen von Dolby Laboratories Licensing Corporation.
- Réducteur de bruits Dolby: Circuit fabriqué sous licence des Dolby Laboratories Licensing Corporation. Le mot "Dolby" et le symbole double D sont des marques déposées des Dolby Laboratories Licensing Corporation.

- In the interests of user-safety the set should be restored to its original condition and only parts identical to those specified be used.
- Im Interesse der Benutzer-Sicherheit sollte dieses Gerät wieder auf seinen ursprünglichen Zustand eingestellt und nur die vorgeschriebenen Teile verwendet werden.
- Dans l'intérêt de la sécurité de l'utilisateur, l'appareil devra être reconstitué dans sa condition première et seules des pièces identiques à celles spécifiées, doivent être utilisées.

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INHALTSVERZEICHNIS

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SHARP CORPORATION

FOR A COMPLETE DESCRIPTION OF THE OPERATION OF THIS UNIT, PLEASE REFER TO THE OPERATION MANUAL.

SPECIFICATIONS

TAPE PLAYER SECTION

Power source:	DC 3 V (UM-4, HP-16 or AAA x 2, or external DC 3 V)
Output power:	Max.; 32 mW (16 mW + 16 mW) RMS; 20 mW (10 mW + 10 mW) 10% distortion
Semiconductors:	8 ICs 1 FET 18 Transistors 7 Diodes 1 Photo Reflector 1 LED
Dimensions:	Width; 77.8 mm (3-1/16") Height; 117 mm (4-19/32") Depth; 27.5 mm (1-3/32")
Weight:	232 g (8.20 oz.) without batteries
Tape:	Compact cassette tape
Frequency response:	40 Hz – 14,000 Hz (Normal tape) 40 Hz – 16,000 Hz (CrO_2 tape) 40 Hz – 16,000 Hz (Metal tape)
Signal/noise ratio:	Dolby NR off; 54 dB Dolby NR effect; 10 dB

RADIO SECTION

Frequency range:	FM; 87.6 MHz – 108 MHz AM; 526.5 kHz – 1606.5 kHz

HEADPHONES

Impedance:	100 ohm
Weight:	48 g (1.7 oz.) with lead and plug

Specifications for this model are subject to change without prior notice.

STRINGING OF DIAL CORD

1. Turn the drum fully in the direction Ⓐ shown in Fig. 2–1 and stretch its cord over the parts in the numerical order.
2. Then turn the tuning control shaft fully in the direction Ⓑ shown in Fig. 2–1 and fix its pointer as shown in Fig. 2–1.

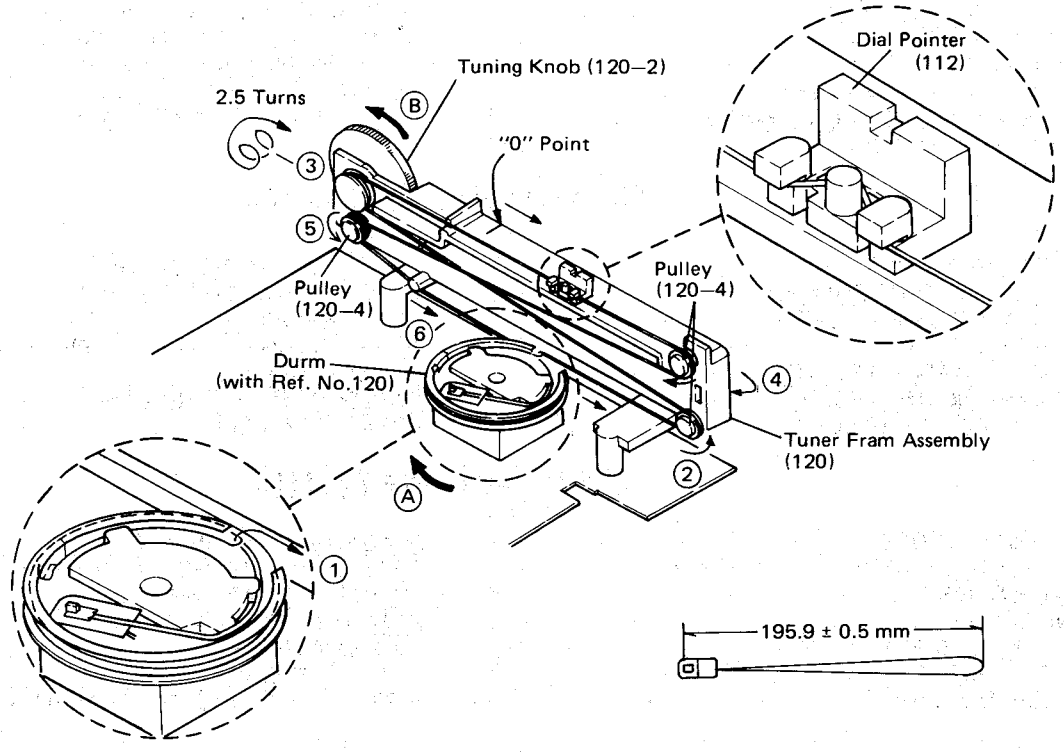

Figure 2–1

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EINE VOLLSTÄNDIGE BESCHREIBUNG DER BEDIENUNG DIESES GERÄTES IST IN DER BEDIENUNGSANLEITUNG ENTHALTEN.

TECHNISCHE DATEN

CASSETTENSPIELERTEIL

Spannungsversorgung:	3 V Gleichspannung (UM-4, HP-16 order AAA x 2, order 3V Außengleichspannung)
Ausgangsleistung:	Max; 32 mW (16 mW + 16 mW) Sinusleistung; 20 mW (10 mW + 10 mW) 10% Verzerrung
Halbleiter:	8 ICs 1 FET 18 Transistoren 7 Dioden 1 Photoreflektor 1 LED
Abmessungen:	Breite; 77,8 mm Höhe; 117 mm Tiefe; 27,5 mm
Gewicht:	232 g (Ohne Batterien)
Band:	Compaktcassettenband
Frequenzbereich:	40 Hz – 14000 Hz (Normalband) 40 Hz – 16000 Hz (Chromband) 40 Hz – 16000 Hz (Reineisenband)
Gerauschabstand:	Dolby NR Aus; 54 dB Dolby NR Effekt; 10 dB

RADIOTEIL

Frequenzgang:	UKW; 87,6 MHz – 108 MHz AM; 526,5 kHz – 1606,5 kHz

KOPFHÖRER

Impedanz:	100 Ohm
Gewicht:	48 g (mit Kabel und Stecker)

Die technischen Daten für dieses Modell können ohne vorherige Ankündigung Änderungen unterworfen sein.

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POUR LA DESCRIPTION COMPLÈTE DU FONCTIONNEMENT DE CET APPAREIL, SE REPORTER AU MODE D'EMPLOI.

CARACTÉRISTIQUES

LECTURE DE BANDE

Alimentation:	CC3 V (UM-4, HP-16 ou AAA x 2, ou CC externe de 3 V)
Puissance de sortie:	Maxi; 32 mW (16 mW + 16 mW) Efficace; 20 mW (10 mW + 10 mW) 10% de distorsion
Semi-conducteurs:	8 CI 1 FET 18 Transistors 7 Diodes 1 Phot-réflecteur 1 LED
Dimensions:	Largeur; 77,8 mm Hauteur; 117 mm Profondeur; 27,5 mm
Poids:	232 g sans les piles
Bande:	Bande cassette compacte
Réponse de fréquence:	40 Hz à 14000 Hz (bande normale) 40 Hz à 16000 Hz (bande CrO_2) 40 Hz à 16000 Hz (bande mètalique)
Rapport signal/bruit:	Dolby NR coupé; 54 dB Effet du Dolby NR; 10 dB

RADIO

Gamme de fréquences:	FM; 87,6 MHz à 108 MHz AM; 526,5 kHz à 1606,5 kHz

CASQUE

Impédance:	100 ohm
Poids:	48 g avec le fil et la fiche

Les caractéristiques de ce modèle sont sujettes à modification sans préavis.

SPNNEN DER SKALENSCHNUR

1. Die Trommel gemäß Abb. 2–1 bis zum Anschlag in Richtung Ⓐ drehen, dann die Schnur in der numerischen Reihenfolge über die einzelnen Teile spannen.
2. Die Abstimmstellerachse gemäß Abb. 2–1 bis zum Anschlag in Richtung Ⓑ drehen, dann den Zeiger gemäß Abb. 2–2 befestigen.

PASSAGE DU CORDON DU CADRAN

1. Tourner le tambour entièrement dans le sens Ⓐ montré sur la Fig. 2–1 et passer le cordon sur les organes indiqués et dans l'ordre numérique.
2. Tourner l'arbre de commande d'accord entièrement dans le sens Ⓑ montré sur la Fig. 2–1 et fixer son index comme le montre la Fig. 2–1.

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NAMES OF PARTS

1. Volume Control
2. Reverse/Function Selector Switch
3. Dolby NR Switch
4. Band/Tape Selector Switch
5. Power/Battery Indicator
6. Headphones Jack
7. Open Button
8. Battery Compartment
9. Cassette Compartment
10. External DC Power Input Jack
11. Graphic Equalizer Controls
12. Fast Winding Buttons
13. Play Button
14. Stop Button
15. Program Button
16. Tuning Control

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NOMENCLATURE

1. Commande de volume
2. Sélecteur de fonction/inversion
3. Réducteur de bruits Dolby
4. Bouton de sélection de gamme/bande
5. Témoin d'alimentation
6. Jack de casque d'ecoute
7. Bouton d'ouverture
8. Compartiment de piles
9. Compartiment de cassette
10. Douille d'entrée d'alimentation CC externe
11. Commandes d'egaliseur graphique
12. Boutons de bobinage rapide
13. Bouton de lecture
14. Bouton d'arrêt
15. Bouton de programme
16. Commande d'accord

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BEZEICHNUNG DER TEILE

1. Lautstärkesteller
2. Bandumkehr-/Funktionswahlschlter
3. Dolby-NR-Schalter
4. Wellenbereichs-/Bandsortenwahlschalter
5. Spannungs-/Batterienzeige
6. Kopfhörerbuchse
7. Auswurftaste
8. Batteriefach
9. Cassettenfach
10. Fremdgleichspannungsbuchse
11. Frequenzgangentzerrersteller
12. Schnellumspulungstasten
13. Wiedergabetaste
14. Stopptaste
15. Programmtaste
16. Abstimmsteller

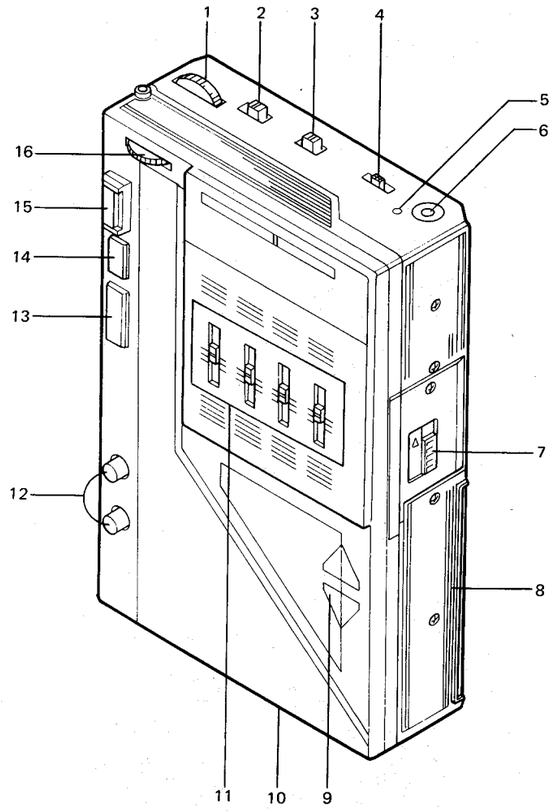

Figure 4

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DISASSEMBLY

Caution on Disassembly
Follow the below-mentioned notes when disassembling the unit and reassembling it, to keep its safety and excellent performance:

1. Take cassette tape out of the unit.
2. After servicing the unit, be sure to rearrange the leads where they were before disassembling.
3. Take sufficient care on static electricity of integrated circuits and other circuits when servicing.

STEP	REMOVAL	PROCEDURE	FIGURE
1	Cassette Holder	1. Screw . . . . . (A)x2 2. Screw . . . . . (B)x1 3. Hook . . . . . (C)x3 4. Graphic EQ P.W.B. Cover. . (D)	5–1 5–2
2	Cabinet	1. Screw . . . . . (E)x6	5–3
3	Main P.W. Board	1. Screw . . . . . (F)x3	5–4

Figure 5–1

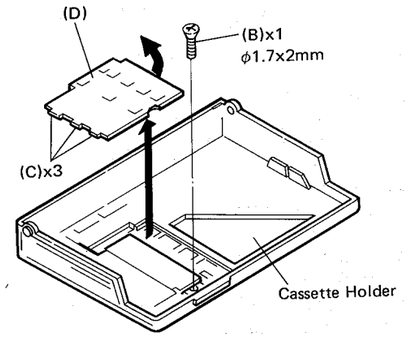

Figure 5–2

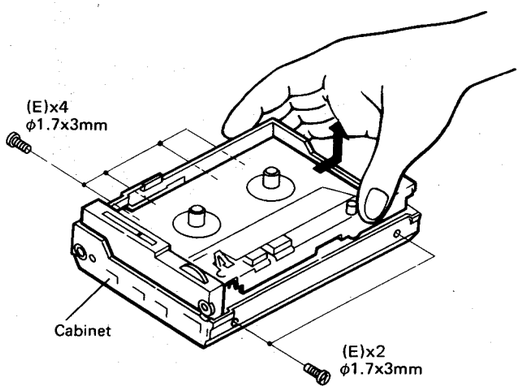

Figure 5–3

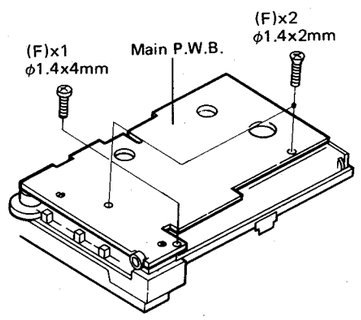

Figure 5–4

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ZERLEGEN

Vorsichtsmassregeln für das zerlegen
Beim Zerlegen und Zusammenbauen des Gerätes die folgenden Anweisungen befolgen, um dessen Betriebssicherheit und ausgezeichnete Leistung aufrechtzuerhalten.

1. Die Cassette aus dem Gerät entfernen.
2. Nach Warten des Gerätes darauf achten, die Leitungen wieder so zu verlegen, wie sie vor dem Zerlegen angeordnet waren.
3. Beim Ausführen von Wartungsarbeiten auf statische Elektrizität der integrierten Schaltkreise und anderen Schaltungen achten.

SCHRITT	ENTFERNEN	VERFAHREN	ABBILDUNG
1	Cassettenfach	1. Schraube . . . . (A)x2 2. Schraube . . . . (B)x1 3. Haken. . . . . (C)x3 4. Frequenzangentzerrer-deckung . . . . (D)	5–1 5–2
2	Gehäusehälfte	1. Schraube . . . . (E)x6	5–3
3	Hauptleiter-platte	1. Schraube . . . . (F)x3	5–4

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DÉMONTAGE

Précautions pour le démontage
Lors du démontage de l'appareil et de son remontage, suivre les précautions ci-dessous, pour maintenir la sécurité et d'excellentes performances.

1. Retirer la cassette de l'appareil.
2. Après la réparation de l'appareil, s'assurer de redisposer les fils tel qu'ils étaient avant le démontage.
3. Faire attention à l'électricité statique des circuits intégrés et des autres circuits lors de la réparation.

ÉTAPE	DÉPOSE	PROCÉDÉ	FIGURE
1	Compartiment de cassette	1. Vis . . . . . (A)x2 2. Vis . . . . . (B)x1 3. Crochet. . . . (C)x3 4. PMI de dégaliseur graphique couverole. . .(D)	5–1 5–2
2	Coffret	1. Vis . . . . . (E)x6	5–3
3	PMI principale	1. Vis . . . . . (F)x3	5–4

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MECHANICAL ADJUSTMENT

ITEM	JIG	ADJUSTMENT POINTS	REMARKS (CHECK)
Driving power	Tape tention megurering cassette Play TW-2412 Reverse TW-2422	—	(More than 50 g)
Torque	Torque meter Play TW-2111 Reverse TW-2121 Fast-forward TW-2231 Rewind TW-2231	—	(Play: 26 ~ 43 g-cm) (Reverse: 26 ~43 g-cm) (*Fast-forward*: More than 60 g-cm) (Rewind: More than 60 g-cm)
Azimuth	Test tape MTT-113C	Azimuth adjusting screw	Adjust for maximum output.
Tape speed	Test tape MTT-111	VR6	3,000±60 Hz

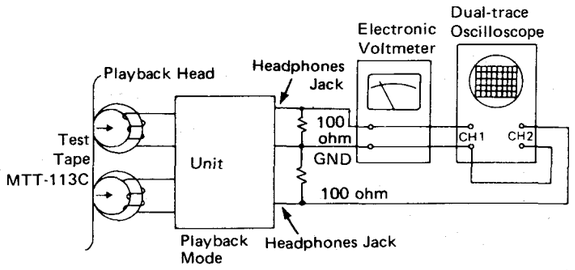

Figure 7–1 AZIMUTH

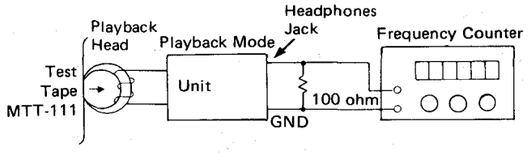

Figure 7–2 TAPE SPEED

TEST TAPES FOR MEASUREMENT

COMPACT CASSETTE TYPE			
TITLE	MODEL	FREQUENCY/ LEVEL	APPLICATION
FLUTTER	MTT-111	3 kHz, –10 dB	Tape speed, Wow and flutter check
AZIMUTH	MTT-113 MTT-113C MTT-114	6.3 kHz, –10 dB 8 kHz, –10 dB 10 kHz, –10 dB	Head azimuth adjustment
DISTORTION	MTT-118	1 kHz, –10 dB	Distortion check level adjustment
DOLBY LEVEL CALIBRATION	MTT-150	Dolby B-Type Tone 200 nwb/m	Dolby NR B-type level adjustment
BLANK	MTT-502	——	Record frequency check

TORQUE METER FOR COMPACT CASSETTE		
MODEL	MEASUREMENT RANGE	APPLICATION
TW-2111	10 – 100 g-cm	Normal : Playback torque
	1.5 – 10 g-cm	Normal : Back-tension
TW-2121	10 – 100 g-cm	Reverse : Playback torque
	1.5 – 10 g-cm	Reverse : Back tension
TW-2231	30 – 200 g-cm	Fast-forward, Rewind torque
TW-2412	0 – 300 g	Normal : Driving power
TW-2422	0 – 300 g	Reverse : Driving power

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MECHANISCHE EINSTELLUNG

BENENNUNG	FÜHRUNGS-LEHRE	EINSTELL-PUNKT	BEMERKUNGEN (PRÜFUNG)
Antriebskraft	Bandzug-Meßcassette Wiedergabe TW-2412 Rücklauf TW-2422	——	(Mehr als 50 g)
Drehmoment	Drehmomentmesser Wiedergabe: TW-2111 Rücklauf: TW-2121 Schnellvorlauf: TW-2231 Rückspulung: TW-2231	——	(Wiedergabe: 26 ~ 43 g-cm) (Rücklauf: 26 ~ 43 g-cm) (Schnellvorlauf: Mehr als 60 g-cm) (Rückspulung: Mehr als 60 g-cm)
Azimut	Testband MTT-113C	Azimuteinstellschraube	Auf maximalen Ausgang einstellen.
Bandgeschwindigkeit	Testband MTT-111	VR6	3,000±60 Hz

TESTBÄNDER FÜR MESSUNG

KOMPAKTCASSETTENTYPE			
BENENNUNG	MODELL	FREQUENZ/ PEGEL	ANWENDUNG
GLEICHLAUF-SCHWANKUNGEN	MTT-111	3 kHz, – 10 dB	Überprüfung der Bandgeschwindigkeit und Gleichlaufschwankungen
AZIMUT	MTT-113 MTT-113C MTT-114	6,3 kHz, – 10 dB 8 kHz, – 10 dB 10 kHz, – 10 dB	Kopfazimuteinstellung
KLIRR-FAKTOR	MTT-118	1 kHz, – 10 dB	Verzerrungspegeleinstellung
DOLBY-PEGEL-EICHUNG	MTT-150	Ton von Dolby B-Typ 200 nwb/m	Dolby-NR B-Typ-Pegeleinstellung
LEER-CASSETTE	MTT-502	——	Überprüfung der Aufnahmefrequenz

DREHMOMENTMESSER FÜR KOMPAKTCASSETTE		
MODELL	MESSBEREICH	ANWENDUNG
TW-2111	10 – 100 g-cm	Normal : Wiedergabedrehmoment
	1,5 – 10 g-cm	Normal : Rückzug
TW-2121	10 – 100 g-cm	Rücklauf : Wiedergabedrehmoment
	1,5 – 10 g-cm	Rücklauf : Rückzug
TW-2231	30 – 200 g-cm	Schnellvorlauf-, Rückspuldrehmoment
TW-2412	0 – 300 g	Normal : Antriebskraft
TW-2422	0 – 300 g	Rücklauf : Antriebskraft

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RÉGLAGE DE MÉCANIQUE

ARTICLE	GABARIT	POINTS DE REGLAGE	REMARQUES (VÉRIFICATION)
Puissance d'entraînement	Cassette de mesure de tension de la bande Lecture TW-2412 Retour TW-2422	—	(Plus de 50 g)
Couple	Compteur de couple Lecture: TW-2111 Retour: TW-2121 Avance rapide: TW-2231 Rebobinage: TW-2231	—	(Lecture: 26 à 43 g-cm) (Retour: 26 à 43 g-cm) (Avance rapide: plus de 60 g-cm) (Rebobinage: plus de 60 g-cm)
Azimuth	Bande d'essai MTT-113C	Vis de réglage de l'azimuth	Régler sur la sortie maximale.
Vitesse de la bande	Bande d'essai MTT-111	VR6	3,000 ± 60 Hz

BANDES D'ESSAI POUR MESURAGE

TAPE CASSETTE COMPACTE			
TITRE	MODÈLE	FRÉQUENCE/ NIVEAU	APPLICATION
PLEURAGE-	MTT-111	3 kHz, – 10 dB	Vérification de la vitesse de bande et du pleurage et scintillement
AZIMUTH	MTT-113 MTT-113C MTT-114	6,3 kHz, – 10 dB 8 kHz, – 10 dB 10 kHz, – 10 dB	Réglage de l'azimuth de la tête
DISTORSION	MTT-118	1 kHz, – 10 dB	Réglage de niveau de distorsion
CALIBRAGE DU NIVEAU DOLBY	MTT-150	Tonalité Dolby type B, 200 nwb/m	Réglage du niveau type B Dolby NR
ESPACE VIERGE	MTT-502	——	Vérification de la fréquence d'enregistrement

JAUGE DE COUPLE POUR CASSETTE COMPACTE		
MODÈLE	GAMME DE MESURE	APPLICATION
TW-2111	10 – 100 g-cm	Normal : Lecture d'entoulement
	1,5 – 10 g-cm	Normal : Tension arrière
TW-2121	10 – 100 g-cm	Retour : Lecture d'enroulement
	1,5 – 10 g-cm	Retour : Tension arrière
TW-2231	30 – 200 g-cm	Couple d'avance rapide et de rembobinage
TW-2412	0 – 300 g	Normal : Puissance d'entraînement
TW-2422	0 – 300 g	Retour : Puissance d'entraînement

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CIRCUIT ADJUSTMENT (AUDIO SECTION)

SETTING POSITION OF SWITCH AND KNOB	Volume control: Maximum Graphic Equalizer Control: Center Band/Tape Selector Switch: Normal Dolby NR switch: OFF		
ITEM	**INPUT**	**ADJUSTMENT POINT**	**REMARKS**
PLAYBACK SENSITIVITY	Test Tape MTT-150	VR1 VR2	100 mV
PHOTOREFLECTOR SENSITIVITY	—	VR5	Adjust for maximal output

Note:
When adjusting the semi-variable resistors VR1, VR2 and VR5, handle a pincette as shown in Fig. 9–3.

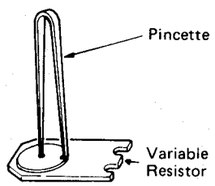


Figure 9–3

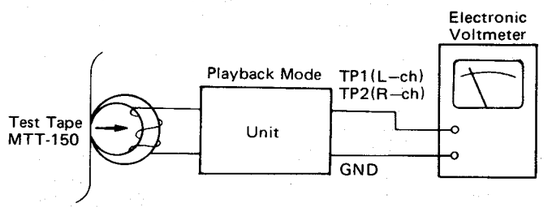


Figure 9–1 PLAYBACK SENSITIVITY

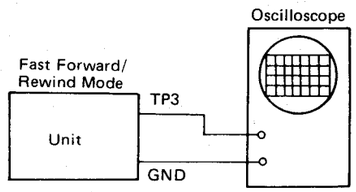


Figure 9–2 PHOTO REFLECTOR

CIRCUIT ADJUSTMENT (TUNER SECTION)

AM IF/RF ADJUSTMENT

SWITCH POSITION		AM			
SIGNAL GENERATOR		400 Hz, 30%, AM modulated			
STEP	**TEST STAGE**	**FREQUENCY**	**DIAL POINTER SETTING**	**ADJUSTMENT**	**REMARKS**
1	IF	460 kHz	High frequency	T202, T204	Adjust for best "IF" curve.
2	Band coverage	510 kHz	Lowest frequency	L206	Adjust for maximal output.
3		1,650 kHz	Highest frequency	TC206	
4	Repeat steps 2 and 3 until no further improvement can be made.				
5	Tracking	600 kHz	600 kHz	L205	Adjust for maximal output.
6	Repeat step 5 until no further improvement can be made.				

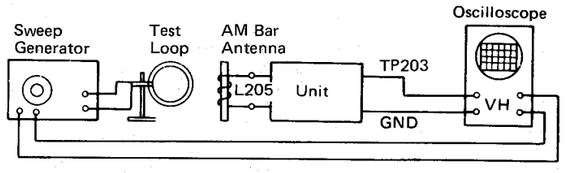


Figure 9–4 AM IF

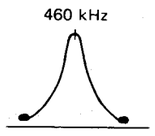


Figure 9–5 AM IF CURVE

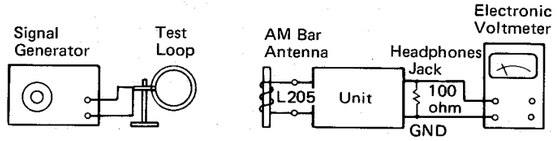


Figure 9–6 AM RF

Ⓓ

SCHALTUNGSEINSTELLUNG (TONTEIL)

SCHALTER-UND STELLER-EINSTELL-POSITION	Lautstärkesteller: Maximal Frequenzgangentzerresteller: Mitting Wellenbereichs-/Bandsortenwahlschalter: Normal Dolby-NR-Schalter: Aus		
BENENNUNG	**EINGANG**	**EINSTELL-PUNKT**	**BEMERKUNGEN**
WIEDERGABEVERSTÄRKEREMPFINDLICHKEIT	Testband MTT-150	VR1 VR2	100mV
PHOTO-REFLEKTOREMPFINDLICHKEIT	—	VR5	Auf maximalen Ausgang einstellen.

Hinweis:
Wenn die Trimmer VR1, VR2 und VR5 eingestellt werden, eine Pinzette wie in Abbildung 9–3 verwenden.

SCHALTUNGSEINSTELLUNG (TUNERTEIL)

AM-ZF/HF EINSTELLUNG

SCHALTER-STELLUNG		AM			
SIGNAL-GENERATOR		400 Hz, 30%, AM-Modulation			
SCHRITT	**RPÜF-STUFE**	**FREQUENZ**	**SKALEN-ZEIGEREINSTELLUNG**	**EINSTELLUNG**	**BEMERKUNGEN**
1	ZF	460 kHz	Hochfrequenz	T202 T204	Auf beste ZF-Kurve einstellen.
2	Frequenzbereich	510 kHz	Unterste Frequenz	L206	Auf maximalen Ausgang einstellen.
3		1650 kHz	Höchste Frequenz	TC206	
4	Dis Schritte 2 und 3 wiederholen, bis keine weitere Verbesserung möglich ist.				
5	Gleichlauf	600 kHz	600 kHz	L205	Auf maximalen Ausgang einstellen.
6	Dis Schritte 5 wiederholen, bis keine weitere Verbesserung möglich ist.				

Ⓕ

RÉGLAGE DU CIRCUIT (SECTION DU AUDIO)

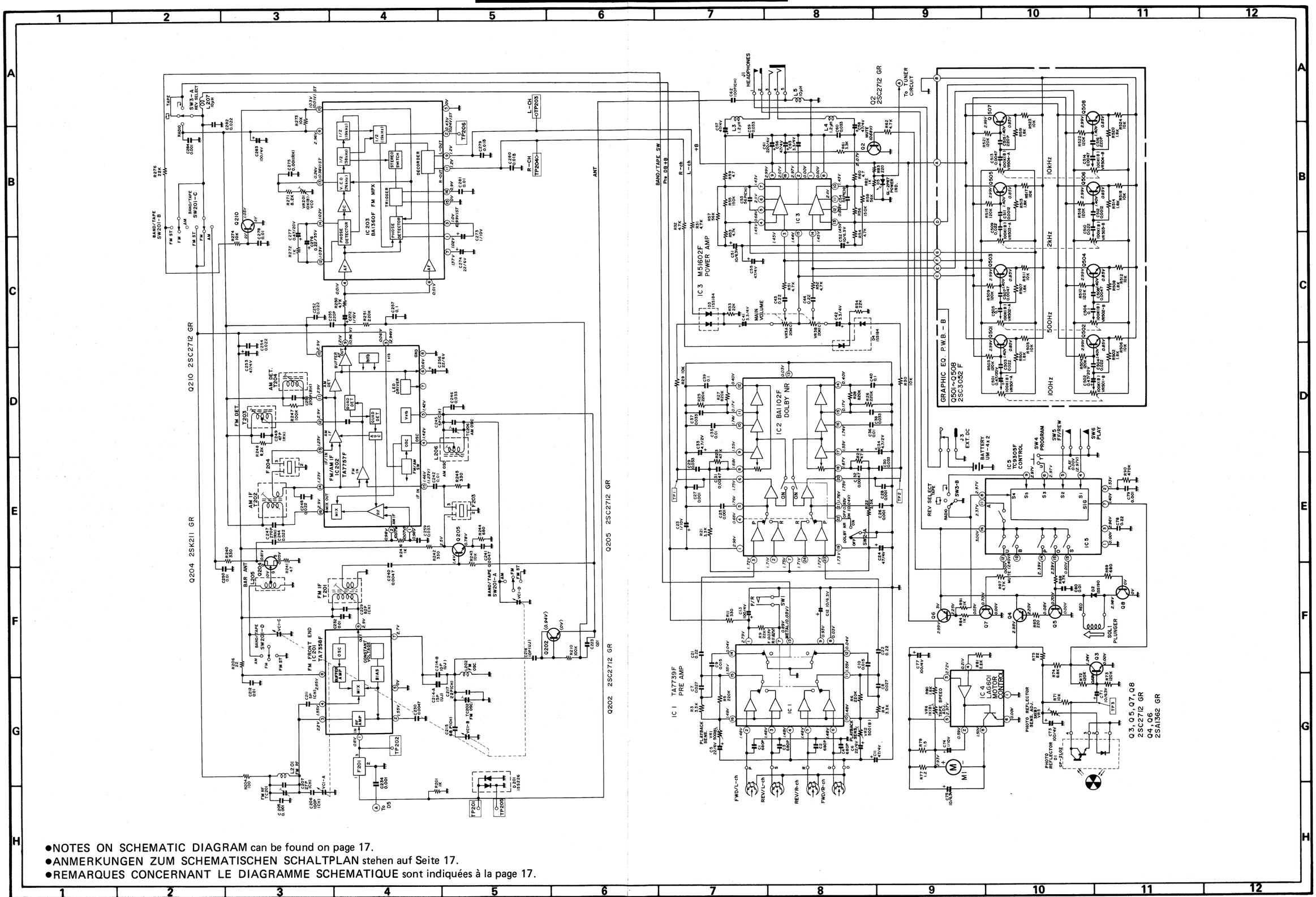
RÈGLAGE DE LA POSITION DES COMMUTATEURS ET BOUTONS	Commande de volume: Maximum Commandes d'egaliseur graphique: Centre Bouton de sélection de gamme/bande: Normal Commutateur Dolby NR: Coupé		
ARTICLE	**ENTRÉE**	**POINT DE RÉGLAGE**	**REMARQUES**
SENSIBILITÉ DE L'AMPLIFICATEUR DE LECTURE	Bonde d'essai MTT-150	VR1 VR2	100 mV
SENSIBILITÉ DE PHOTO-RÉFLECTEUR	——	VR5	Régler sur la sortie maximale.

Note:
Lors du réglage des résistances semi-variables VR1, VR2 et VR5, utiliser une pincette comme le montre la Fig. 9–3.

RÉGLAGE DU CIRCUIT (SECTION DU TUNER)

RÉGLAGE DE FI/RF AM

POSITION DU COMMUTATEUR	AM				
GÉNÉRATEUR DE SIGNAUX	400 Hz, 30%, modulé AM				
ÉTAPE	**ÉTAGE D'ESSAI**	**FRÉQUENCE**	**MISE AU POINT DE L'INDEX**	**RÉGLAGE**	**REMARQUES**
1	FI	460 kHz	Haute fréquence	T202 T204	Régler sur la meilleure courbe "FI".
2	Étendue de gamme d'ondes	510 kHz	Fréquence la plus basse	L206	Régler sur la sortie maximale.
3		1650 kHz	Fréquence la plus élevée	TC206	
4	Refaire les étapes 2 et 3 jusqu'à ce qu'une amélioration ultérieure ne puisse plus être obtenue.				
5	Alignement	600 kHz	600 kHz	L205	Régler sur la sortie maximale.
6	Refaire les étape 5 jusqu'à ce qu'une amélioration ultérieure ne puisse plus être obtenue.				



- NOTES ON SCHEMATIC DIAGRAM can be found on page 17.
- ANMERKUNGEN ZUM SCHEMATISCHEN SCHALTPLAN stehen auf Seite 17.
- REMARQUES CONCERNANT LE DIAGRAMME SCHEMATIQUE sont indiquées à la page 17.

Figure 13 SCHEMATIC DIAGRAM

Ⓔ

FM IF/RF ADJUSTMENT

SWITCH POSITION			FM mono		
SIGNAL GENERATOR			400 Hz, 30%, FM modulated		
STEP	TEST STAGE	FREQUENCY	DIAL POINTER SETTING	ADJUSTMENT	REMARKS
1	IF	10.7 MHz	High frequency	T201	1. Using a minus driver, turn the core of T203 counter-clockwise before taking it out of this bobbin. 2. Adjust for best "IF" curve.
2	Detection			T203	Adjust for best "S" curve.
3	Repeat steps 1 and 2 until no further improvement can be made.				
4	Band coverage	87.3 MHz	Lowest frequency	L202	Adjust for maximal output.
5		108.3 MHz	Highest frequency	TC202	
6	Repeat steps 4 and 5 until no further improvement can be made.				
7	Tracking	88 MHz	88 MHz	L201	Adjust for maximal output.
8		108 MHz	108 MHz	TC201	
9	Repeat steps 7 and 8 until no further improvement can be made.				

VCO FREQUENCY ADJUSTMENT

SIGNAL GENERATOR		400 Hz, 30%, FM unmodulated (mono signal)	
FREQUENCY	DIAL POINTER SETTING	ADJUSTMENT	REMARKS
FM mono position		FM stereo position (unmodulated)	
83 MHz at 60 dB	83 MHz	VR201	Adjust for 19 kHz ± 75 Hz

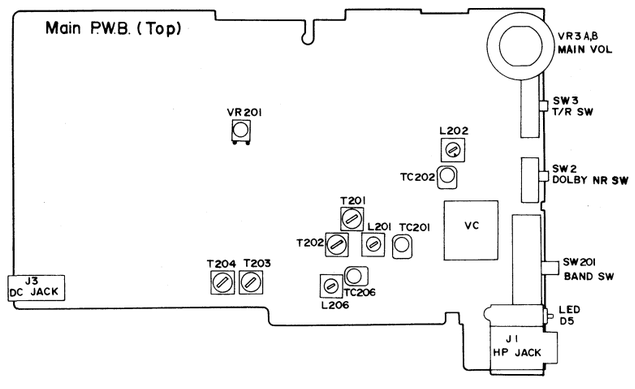


Figure 11–6 ADJUSTMENT POINTS (TOP)

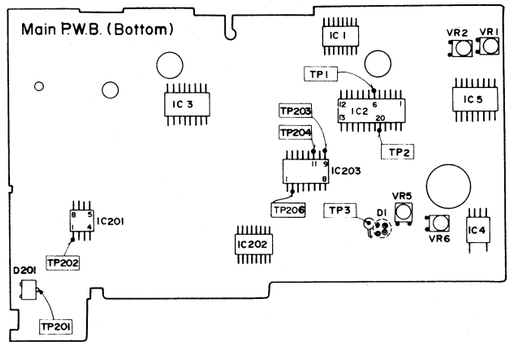


Figure 11–7 ADJUSTMENT POINTS (BOTTOM)

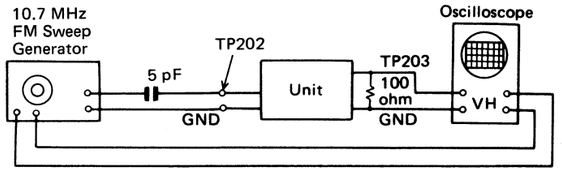


Figure 11–1 FM IF

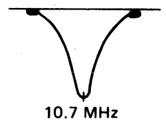


Figure 11–2 IF CURVE

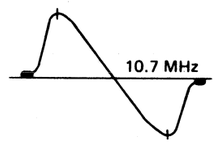


Figure 11–3 S CURVE

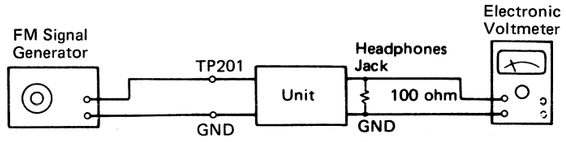


Figure 11–4 FM RF

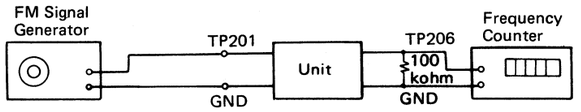


Figure 11–5 VCO FREQUENCY

Ⓓ

UKW-ZF/HF-EINSTELLUNG

SCHALTERSTELLUNG			FM mono		
SIGNALGENERATOR			400 Hz, 30%, UKW-Modulation		
SCHRITT	PRÜFSTUFE	FREQUENZ	SKALENZEIGEREINSTELLUNG	EINSTELLUNG	BEMERKUNGEN
1	ZF	10,7 MHz	Hochfrequenz	T201	1. Den Kern von T203 mit Hilfe eines normalen Schraubenziehers entgegen dem Uhrzeigersinn drehen, bevor dieser aus der Spule genommen wird. 2. Auf beste ZF-Kurve einstellen.
2	Detektion			T203	Auf beste S-Kurve einstellen.
3	Die Schritte 1 und 2 wiederholen, bis keine weitere Verbesserung möglich ist.				
4	Frequenzbereich	87,3MHz	Unterste Frequenz	L202	Auf maximalen Ausgang einstellen.
5		108,3MHz	Höchste Frequenz	TC202	
6	Die Schritte 4 und 5 wiederholen, bis keine weitere Verbesserung möglich ist.				
7	Gleichlauf	88MHz	88MHz	L201	Auf maximalen Ausgang einstellen.
8		108MHz	108Mhz	TC201	
9	Die Schritte 7 und 8 wiederholen, bis keine weitere Verbesserung möglich ist.				

EINSTELLUNG DER VCO-FREQUENZ

SIGNALGENERATOR		400 Hz, 30%, UKW-Modulation (Mono-Signal)	
FREQUENZ	SKALENZEIGEREINSTELLUNG	EINSTELLUNG	BEMERKUNGEN
"FM mono" einstellen		"FM stereo" einstellen (unmoduliert)	
83 MHz bei 60 dB	83 MHz	VR201	Auf 19 kHz ± 75 Hz einstellen.

DIE ANWEISUNG DER FREQUENZEINSTELLUNG

Um der Postverfügung Nr. 476/1981 zu entsprechen, wird der UKW-Frequenzbereich mit Hilfe der Oszillatorspullen (L202-untere Eck frequenz: 87,5 MHz) und des Oszillatortrimmers (TC202-obere Eckfrequenz: 108,0 MHz) gemäß Abbildung 11–6 eingestellt.

Ⓕ

RÉGLAGE DE FI/RF FM

POSITION DU COMMUTATEUR			FM mono		
GÉNÉRATEUR DE SIGNAUX			400 Hz, 30%, modulé FM		
ÉTAPE	ÉTAGE D'ESSAI	FRÉQUENCE	MISE AU POINT DE L'INDEX	RÉGLAGE	REMARQUES
1	FI	10,7MHz	Haute fréquence	T201	1. À l'aide d'un tournevis plat, tourner le noyau de T203 à gauche avant de le sortir de la bobine. 2. Régler sur la meilleure courbe "FI".
2	Détection			T203	Régler sur la meilleure courbe "S".
3	Refaire les étapes 1 et 2 jusqu'à ce qu'une amélioration ultérieure ne puisse plus être obtenue.				
4	Étendur de gamme d'ondes	87,3MHz	Fréquence la plus basse	L202	Régler sur la sortie maximale.
5		108,3MHz	Fréquence la plus élevée	TC202	
6	Refaire les étapes 4 et 5 jusqu'à ce qu'une amélioration ultérieure ne puisse plus être obtenue.				
7	Alignement	88MHz	88 MHz	L201	Régler sur la sortie maximale.
8		108MHz	108 MHz	TC201	
9	Refaire les étapes 7 et 8 jusqu'à ce qu'une amélioration ultérieure ne puisse plus être obtenue.				

RÉGLAGE DE LA FRÉQUENCE VCO

GÉNÉRATEUR DE SIGNAUX		400 Hz, 30%, modulé FM (mono signal)	
FRÉQUENCE	MISE AU POINT DE L'INDEX	RÉGLAGE	REMARQUES
Position FM mono		Position FM stéréo (non modulés)	
83 MHz à 60 dB	83 MHz	VR201	Réglage sur 19 kHz ± 75 Hz.

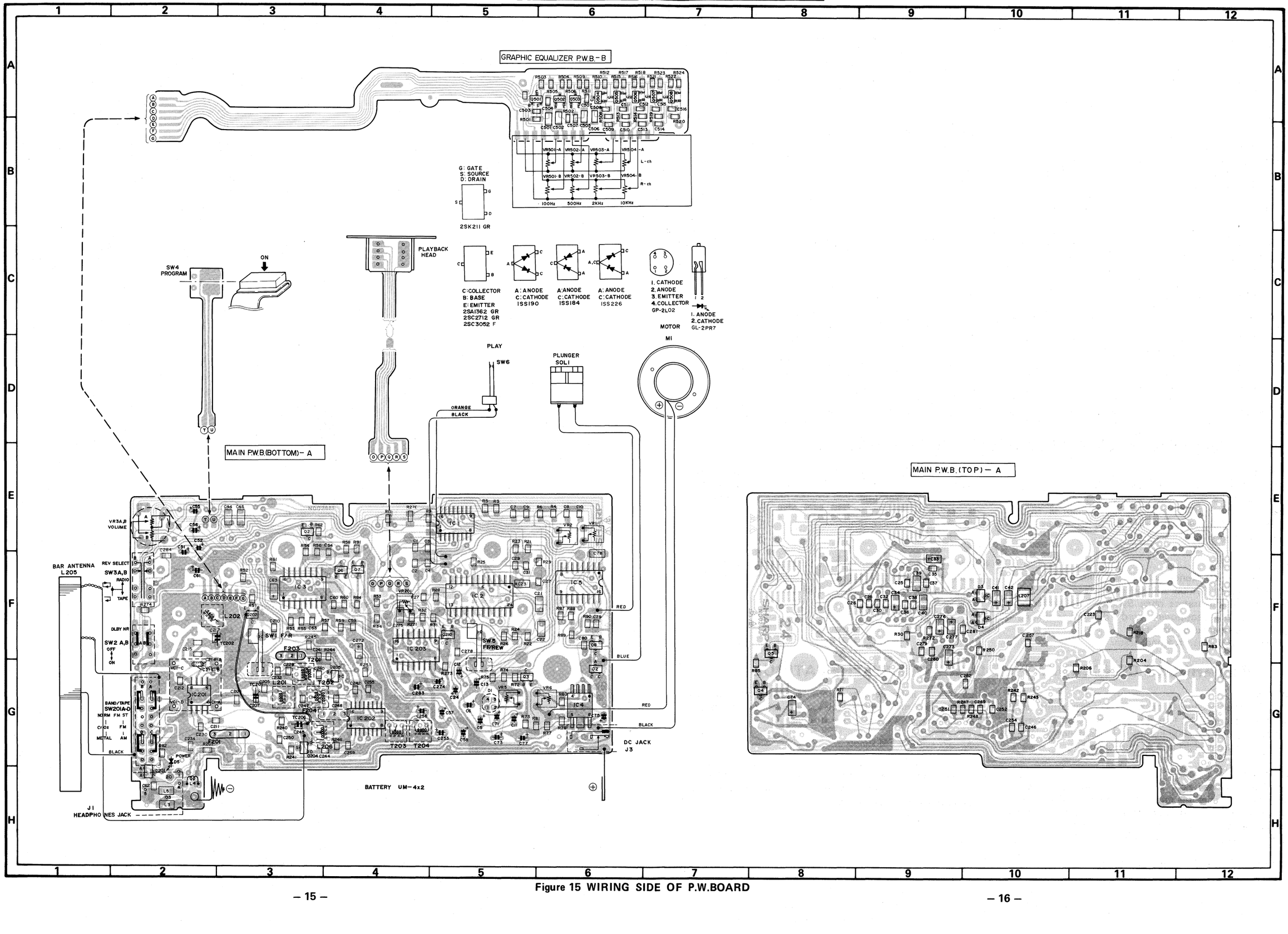


Figure 15 WIRING SIDE OF P.W.BOARD

Ⓔ NOTES ON SCHEMATIC DIAGRAM

- Resistor:
  To differentiate the units of resistors, such symbol as K and M are used: the symbol K means 1000 ohm and the symbol M means 1000 kohm and resistor without any symbol is ohm-type resistor.

- Capacitor:
  To indicate the unit of capacitor, a symbol P is used: this symbol P means micro-micro-farad and the unit of the capacitor without such a symbol is microfarad. As to electrolytic capacitor, the expression "capacitance/withstand voltage" is used.

  (CH), (RH), (TH), (UJ): Temperature compensation

- The indicated voltage in each section is the one measured by Digital Multimeter between such a section and the chassis with no signal given.

  < > : FM ST mode
  ( ) : FM mode

- Schematic diagram and Wiring Side of P.W.Board for this model are subject to change for improvement without prior notice.

REF. NO.	DESCRIPTION	POSITION
SW1	PLAY / REVERSE	ON – OFF
SW2	DOLBY NR	ON – OFF
SW3	REV SELECT / RADIO / TAPE	RADIO – TAPE (↻–↵)
SW4	PROGRAM	ON – OFF
SW5	FAST FORWARD	ON – OFF
SW6	PLAY	ON – OFF
SW201	BAND / TAPE SELECTOR	FM ST – FM –AM / NORM – CrO_2 – METAL

Ⓓ ANMERKUNGEN ZUM SCHEMATISCHEN SCHALTPLAN

- Widerstände:
  Um die Einheiten der Widerstände unterscheiden zu können, werden Symbole wie K und M benutzt. Das Symbol K bedeutet 1000 Ohm und das Symbol M 1000 Kiloohm. Bei Widerständen ohne Symbol handelt es sich um ohmsche Widerstände.

- Kondensatoren:
  Zum Bezeichnen der Kondensatoreinheit wird das Symbol P benutzt; dieses Symbol P bedeutet Nanofard. Die Einheit eines Kondensators ohne Symbol ist Mikrofarad. Für Elektrolytkondensatoren wird die Be-zeichnung "Kapazität/Stehspannung" benutzt.
  (CH), (RH), (TH),(UJ): TK-Kondensator

- Die in den einzelnen Teilen angegebenen Spannungen werden mit einem Digitalvielfachmeßgerät zwischen dem betreffen den Teil und dem Chassis ohne Signalzuleitung gemessen.
  < > : UKW-Stereo-Betriebsart
  ( ) : UKW-Stereo

- Änderungen des schematischen Schaltplans und der Verdrahtungsseite der Leiterplatte für dieses Modell im Sinne von Verbesserungen jederzeit vorbehalten.

Ⓕ REMARQUES CONCERNANT LE DIAGRAMME SCHÉMATIQUE

- Résistance:
  Pour différencier les unités de résistances, on utilise des symbole tels que K et M: le symbole K signifie 1000 ohms, le symbole M signifie 1000 kohms et la résistance donnée sans symbole est une résistance de type ohm.

- Condensateur:
  Pour indiquer l'unité de condensateur, on utilise le symbole P; ce symbole P signifie micro-microfarad, et l'unité de condensateur donnée sans ce symbole est le microfarad. En ce qui concerne le condensateur électrolytique, on utilise l'expression "tension de régime/capaçité"

  (CH), (RH), (TH), (UJ): Compensation de température

- La tension indiquée dans chaque section est celle mesurée par un multimètre numérique entre la section en question et le châssis, en l'absence de tout signal.

  < > : Mode FM stéréo
  ( ) : Mode FM

- Le diagramme schématique et le côté câblage de la PMI de ce modèle sont sujets à modifications sans préavis pour l'amélioration de ce produit.

PACKING METHOD(FOR UK)

SETTING POSITIONS OF SWITCHES AND KNOBS	
DOLBY NR	OFF
REV SELECT/RADIO/TAPE	TAPE/↵
VOLUME	0
MECHANISM	OFF
GRAPHIC EQUALIZER	Center
BAND/TAPE SELECTOR	FM ST/NORM
TUNING	Get it back half a turn from f_H position.

1.	HDECQ0281AFSA	Belt Clip
2.	RPHōH0062AFZZ	Headphones
3.	SPAKA1450AFZZ	Packing Add. (Bottom)
4.	SPAKA1451AFZZ	Packing Add. (Top)
5.	SPAKC3573AFZZ	Packing Case, JC-786E(R)
	SPAKC3574AFZZ	Packing Case, JC-786E(BL)
	SPAKC3575AFZZ	Packing Case, JC-786E (BK)
6.	SSAKA0019AFZZ	Polyethylene Bag, Operation Manual
7.	TGANE1117AFZZ	Warranty Card
8.	TiNSZ0826AFZZ	Operation Manual
9.	SPAKP0567AFZZ	Polyethylene Bag, Unit
10.	SPAKX1539AFZZ	Sheet Cover
11.	UBATU0066AFZZ	Battery
12.	SPAKX1595AFZZ	Cover, Packing Add. (Bottom)
13.	TLABJ0006AFZZ	Label, "MADE IN JAPAN"

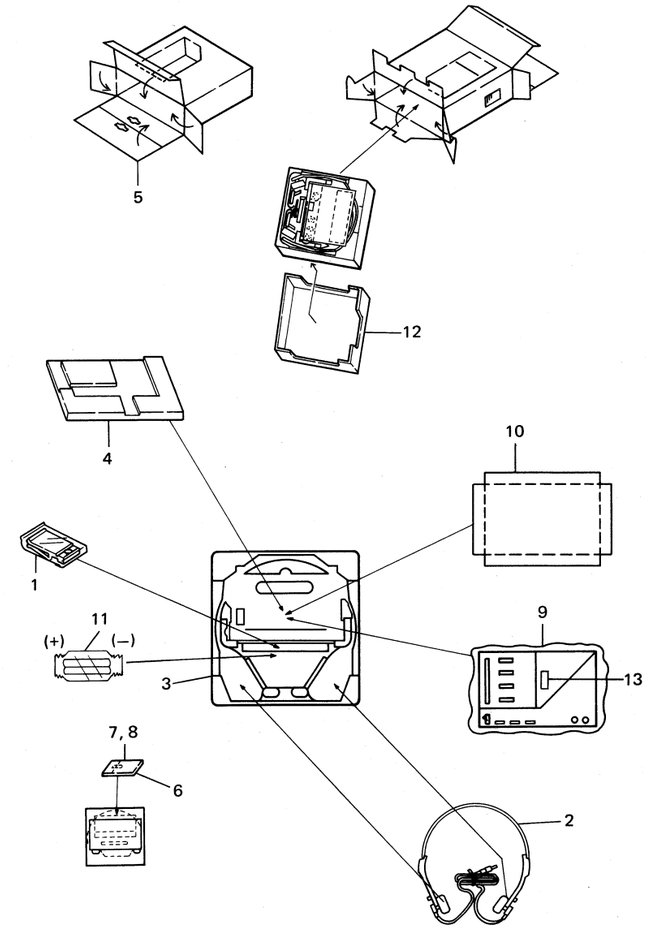


Figure 18

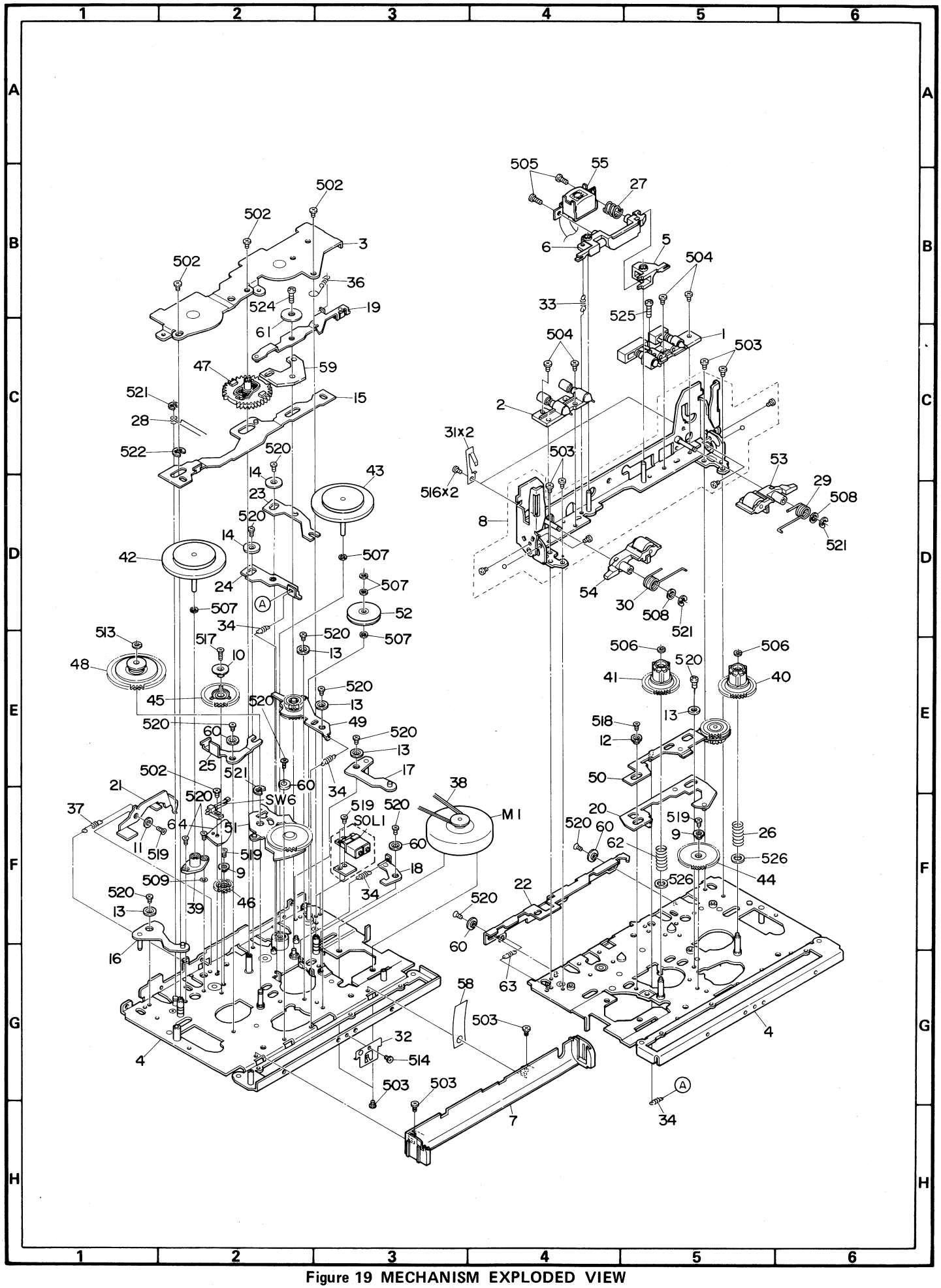


Figure 19 MECHANISM EXPLODED VIEW

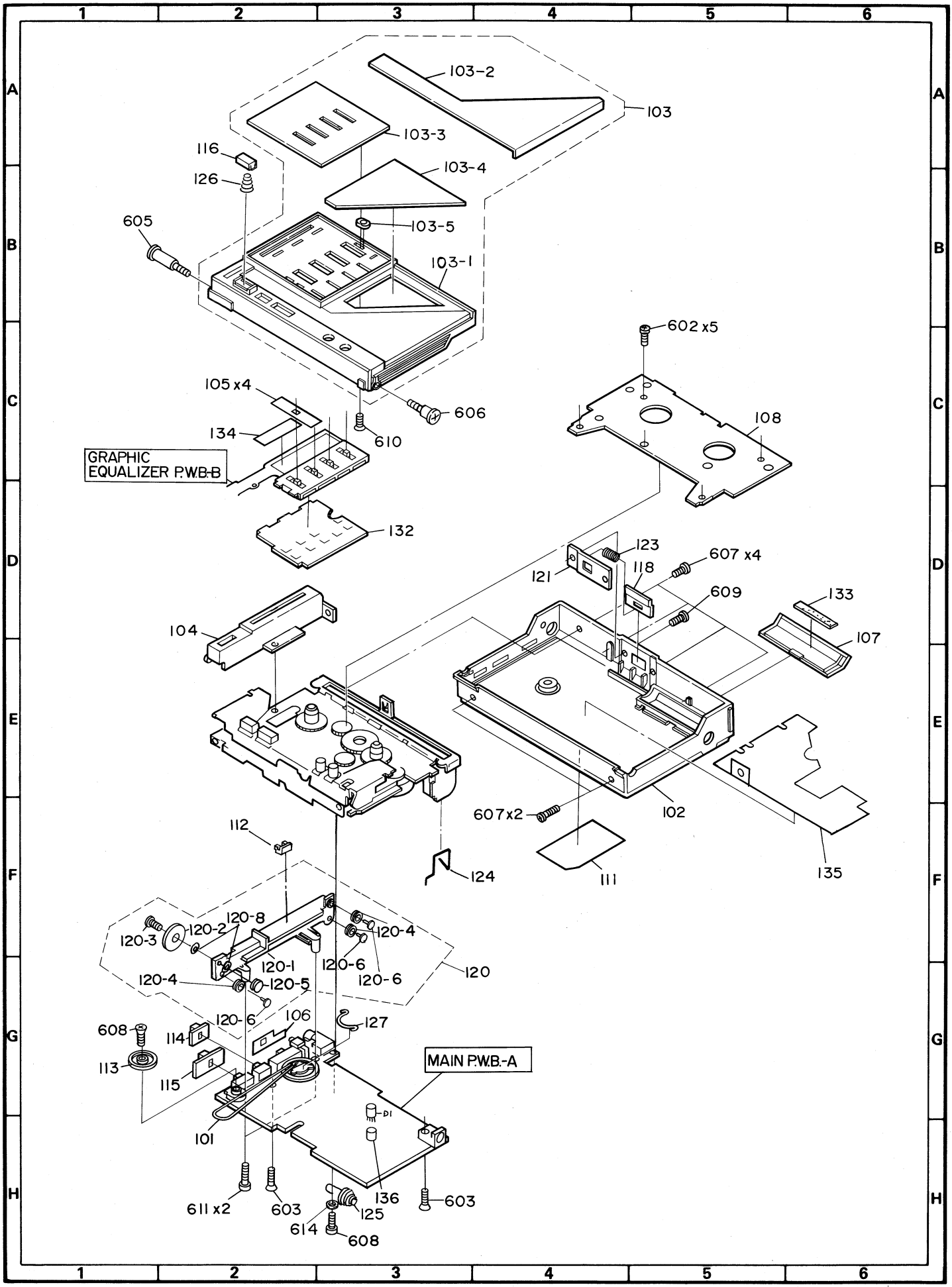


Figure 20 CABINET EXPLODED VIEW

Ⓔ

REPLACEMENT PARTS LIST

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following information.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION

Ⓓ

ERSATZTEILLISTE

"BESTELLEN VON ERSATZTEILEN"

Um Ihren Auftrag schnell und richtig ausfuhren zu können, bitten wir um diefolgenden Angaben.

1. MODELLNUMMER
2. REF. NR.
3. TEIL NR.
4. BESCHREIBUNG

Ⓕ

LISTE DES PIÈCES DE RECHANGE

"COMMENT COMMANDER DES PIÈCES DE RECHANGE"

Pour voir votre commande exécutée de manière rapide et correcte, veuillez fournir les renseignements suivants.

1. NUMÉRO DU MODÈLE
2. N° DE RÉFÉRENCE
3. N° DE LA PIÈCE
4. DESCRIPTION

REF.NO.	PART NO.	DESCRIPTION	CODE
	INTEGRATED CIRCUITS		
IC1	VHiTA7739F/-1	Pre Amp.,TA7739F	A H
IC2	RH-iX1287AFZZ	Dolby NR Circuit,BA1102F	A Q
IC3	VHiM51602F/-1	Power Amp.,M51602F	A M
IC4	VHiLAG601//-1	Motor Control,LAG601	A H
IC5	RH-iX1271AFZZ	Mechanism Control, TC9305F	A P
IC201	VHiTA7358F/-1	Front End,TA7358F	A G
IC202	VHiTA7757F/-1	FM/AM IF,TA7757F	A H
IC203	VHiBA1360F/-1	MPX.,BA1360F	A G
	TRANSISTORS		
Q2	VS2SC2712GR-1	Silicon,NPN,2SC2712 GR	A B
Q3	VS2SC2712GR-1	Silicon,NPN,2SC2712 GR	A B
Q4	VS2SA1362GR-1	Silicon,PNP,2SA1362 GR	A C
Q5	VS2SC2712GR-1	Silicon,NPN,2SC2712 GR	A B
Q6	VS2SA1362GR-1	Silicon,PNP,2SA1362 GR	A C
Q7	VS2SC2712GR-1	Silicon,NPN,2SC2712 GR	A B
Q8	VS2SC2712GR-1	Silicon,NPN,2SC2712 GR	A B
Q202	VS2SC2712GR-1	Silicon,NPN,2SC2712 GR	A B
Q204	VS2SK211GR/-1	Silicon,FET,2SK211 GR	A D
Q205	VS2SC2712GR-1	Silicon,NPN,2SC2712 GR	A B
Q210	VS2SC2712GR-1	Silicon,NPN,2SC2712 GR	A B
Q501	VS2SC3052F/-1	Silicon,NPN,2SC3052 F	A B
Q502	VS2SC3052F/-1	Silicon,NPN,2SC3052 F	A B
Q503	VS2SC3052F/-1	Silicon,NPN,2SC3052 F	A B
Q504	VS2SC3052F/-1	Silicon,NPN,2SC3052 F	A B
Q505	VS2SC3052F/-1	Silicon,NPN,2SC3052 F	A B
Q506	VS2SC3052F/-1	Silicon,NPN,2SC3052 F	A B
Q507	VS2SC3052F/-1	Silicon,NPN,2SC3052 F	A B
Q508	VS2SC3052F/-1	Silicon,NPN,2SC3052 F	A B
	DIODES		
D1	VHPGP-2L02/-1	Photoreflector,GP-2L02	A H
D2	VHD1SS190//-1	Silicon,1SS190	A B
D3	VHD1SS184//-1	Silicon,1SS184	A B
D4	VHD1SS184//-1	Silicon,1SS184	A B
D5	RH-PX1071AFZZ	LED,Red,GL-2PR7	A C
D201	VHD1SS226//-1	Silicon,1SS226	A B
	FILTERS		
F201	RFiLF0117AFZZ	FM Band Pass	A C
F203	RFiLF0116AFZZ	FM IF	A C
F204	RFiLA0113AFZZ	AM RF	A D
	TRANSFORMERS		
T201	RCiLi0341AFZZ	FM IF	A F
T202	RCiLi0343AFZZ	AM IF	A F
T203	RCiLi0342AFZZ	FM Detector	A F
T204	RCiLi0344AFZZ	AM Detector	A F
	COILS		
L3	RCiLF0112AFZZ	1.2 μH,Choke	A C
L4	RCiLF0107AFZZ	1.2 μH,Choke	A C
L5	RCiLF0117AFZZ	10 μH,Choke	A C
L201	RCiLR0398AFZZ	FM RF	A E
L202	RCiLB0774AFZZ	FM Oscillator	A E
L205	RCiLA0753AFZZ	Bar Antenna	A K
L206	RCiLB0756AFZZ	AM Oscillator	A F
L207	RCiLF0113AFZZ	10 μH,Choke	A C
	CONTROLS		
TC201	RTō-H1102AFZZ	FM RF Trimmer	A C
TC202	RTō-H1102AFZZ	FM Local Oscillator Trimmer	A C
TC206	RTō-H1102AFZZ	AM Local Oscillator Trimmer	A C
VC1(A~D)	RVC-R0109AFZZ	Variable Capacitor,E	A S
VC1(A~D)	RVC-R0111AFZZ	Variable Capacitor,H	A S
VR1	RVR-M0535AFZZ	500 ohms (B)	A C
VR2	RVR-M0535AFZZ	500 ohms (B)	A C
VR3(A,B)	RVR-A0197AFZZ	20 kohms (C)	A F
VR5	RVR-M0536AFZZ	3 kohms (B)	A C
VR6	RVR-M0538AFZZ	1 kohm (B)	A C
VR201	RVR-M0537AFZZ	10 kohm (B)	A C
VR501~504	RVR-Z0203AFZZ	100 kohm (B)	A Q
	ELECTROLYTIC CAPACITORS		
	(All electrolytic capacitors are ±20% type.)		
C5	RC-EZ1280AFZZ	22 μF,6V	A B
C6	RC-EZ1280AFZZ	22 μF,6V	A B
C11	RC-EZ1281AFZZ	47 μF,4V	A B
C12	RC-EZC106AF0J	10 μF,6.3V	A B
C13	RC-EZ1282AFZZ	100 μF,4V	A B
C23	RC-SZ1029AFZZ	1 μF,10V	A D
C24	RC-EZ1281AFZZ	47 μF,4V	A B
C33	RC-SZ1033AFZZ	4.7 μF,2V	A D
C34	RC-SZ1033AFZZ	4.7 μF,2V	A D
C41	RC-SZ1032AFZZ	3.3 μF,4V	A D
C42	RC-SZ1032AFZZ	3.3 μF,4V	A D
C51	RC-EZC106AF0J	10 μF,6.3V	A B
C52	RC-EZC106AF0J	10 μF,6.3V	A B
C55	RC-EZ1281AFZZ	47 μF,4V	A B
C56	RC-EZ1281AFZZ	47 μF,4V	A B
C57	RC-EZ1281AFZZ	47 μF,4V	A B
C58	RC-EZ1281AFZZ	47 μF,4V	A B
C61	RC-EZ1283AFZZ	220 μF,4V	A C
C63	RC-SZ1032AFZZ	3.3 μF,4V	A D

REF.NO.	PART NO.	DESCRIPTION	CODE
C71	RC-EZC106AF0J	10 μF,6.3V	A B
C73	RC-EZ1282AFZZ	100 μF,4V	A B
C74	RC-SZ1029AFZZ	1 μF,10V	A D
C75	RC-EZC106AF0J	10 μF,6.3V	A B
C77	RC-EZ1282AFZZ	100 μF,4V	A B
C253	RC-EZ1281AFZZ	47 μF,4V	A B
C256	RC-EZ1280AFZZ	22 μF,6V	A B
C272	RC-SZ1029AFZZ	1 μF,10V	A D
C273	RC-SZ1029AFZZ	1 μF,10V	A D
C274	RC-EZ1280AFZZ	22 μF,6V	A B
C276	RC-SZ1030AFZZ	0.22 μF,35V	A D
C277	RC-SZ1026AFZZ	0.47 μF,20V	A D
C283	RC-EZ1282AFZZ	100 μF,4V	A B
C501	RC-SZ1026AFZZ	0.47 μF,20V	A D
C502	RC-SZ1026AFZZ	0.47 μF,20V	A D

CAPACITORS

There are two types of capacitors available and they can be identified from each other by reading their Part Numbers.

- Ceramic type capacitor;

  A symbol "C" or "K" is given at the 3rd digit of its Part Number like "VCC (or K)·····J."

- Semiconductor type capacitor:

  A symbol "T" is given at the 3rd digit of its Part Number like "VCT·····J."

The capacitance error of each capacitor is indicated by the symbol given at the 13th digit of the Part Number as follows:"J" (±5%), "K" (±10%), "M" (±20%), "N" (±30%), "C" (±0.25 pF), "D" (±0.5 pF), "Z" (+80−20%).

(Tubular type ceramic capacitor is identified by the symbol TV(TQ) of the part NO. VC00TV(TQ)0000000; this TV(TQ) does not mean the lead wire.)

C1	VCKYTV1HB681K	680 pF,50V	A A
C2	VCKYTV1HB681K	680 pF,50V	A A
C3	VCKYTV1HB681K	680 pF,50V	A A
C4	VCKYTV1HB681K	680 pF,50V	A A
C7	VCKYTV1EB273K	0.027 μF,25V	A B
C8	VCKYTV1EB273K	0.027 μF,25V	A B
C9	VCKYTV1EB153K	0.015 μF,25V	A B
C10	VCKYTV1EB153K	0.015 μF,25V	A B
C21	VCKYTQ1EF224Z	0.22 μF,25V	A B
C22	VCKYTQ1EF224Z	0.22 μF,25V	A B
C25	VCKYTV1HD102M	0.001 μF,50V	A A
C26	VCKYTV1HD102M	0.001 μF,50V	A A
C27	VCKYTV1HD102M	0.001 μF,50V	A A
C28	VCKYTV1HD102M	0.001 μF,50V	A A
C29	VCKYTV1ED333M	0.033 μF,25V	A B
C30	VCKYTV1ED333M	0.033 μF,25V	A B
C31	VCKYTV1HB472K	0.0047 μF,50V	A A
C32	VCKYTV1HB472K	0.0047 μF,50V	A A
C35	VCKYTV1HB103K	0.01 μF,50V	A B
C36	VCKYTV1HB103K	0.01 μF,50V	A B
C37	VCKYTV1ED333M	0.033 μF,25V	A B
C38	VCKYTV1ED333M	0.033 μF,25V	A B
C39	VCKYTQ1ED104M	0.1 μF,25V	A C
C40	VCKYTQ1ED104M	0.1 μF,25V	A C
C43	VCKYTQ1EF224Z	0.22 μF,25V	A B
C44	VCKYTQ1EF224Z	0.22 μF,25V	A B
C53	VCCCTV1HH560J	56 pF (CH),50V	A A
C54	VCCCTV1HH560J	56 pF (CH),50V	A A
C59	VCKYTV1ED333M	0.033 μF,25V	A B
C60	VCKYTV1ED333M	0.033 μF,25V	A B
C62	VCCCTV1HH101J	100 pF (CH),50V	A A
C78	VCKYTQ1EF224Z	0.22 μF,25V	A B
C79	VCKYTV1HD102M	0.001 μF,50V	A A
C80	VCKYTV1HB103K	0.01 μF,50V	A B
C205	VCKYTV1HB103K	0.01 μF,50V	A B
C206	VCCCTV1HH101J	100 pF (CH),50V	A A
C207	VCCCTV1HH270J	27 pF (CH),50V	A A
C211	VCCCTV1HH5R0C	5 pF (CH),50V	A A
C212	VCKYTV1HB103K	0.01 μF,50V	A B
C214-A	VCCUTV1HJ150J	15 pF (UJ),50V	A A
C214-B	VCCUTV1HJ100J	10 pF (UJ),50V	A A
C215	VCCCTV1HH680J	68 pF (CH),50V	A A
C217	VCCCTV1HH220J	22 pF (CH),50V	A A
C218	VCCUTV1HJ100D	10 pF (UJ),50V	A A
C223	VCKYTV1HB103K	0.01 μF,50V	A B
C229	VCCCTV1HH820J	82 pF (CH),50V	A A
C230	VCKYTV1HB472K	0.0047 μF,50V	A A
C232	VCKYTV1HB103K	0.01 μF,50V	A B
C234	VCKYTV1HD102M	0.001 μF,50V	A A
C240	VCKYTV1HB472K	0.0047 μF,50V	A A
C241	VCKYTV1HB472K	0.0047 μF,50V	A A
C242	VCKYTV1HB103K	0.01 μF,50V	A B
C244	VCKYTV1EB223K	0.022 μF,25V	A B
C245	VCCCTV1HH5R0C	5 pF (CH),50V	A A
C246	VCKYTV1ED333M	0.033 μF,25V	A B
C247	VCCRTV1HH271J	270 pF (RH),50V	A B
C248	VCKYTV1EB223K	0.022 μF,25V	A B
C249	VCCRTV1HH470J	47 pF (RH),50V	A A
C250	VCKYTV1HB103K	0.01 μF,50V	A B
C251	VCCRTV1HH271J	270 pF (RH),50V	A B
C252	VCKYTV1EB223K	0.022 μF,25V	A B
C254	VCKYTV1EB223K	0.022 μF,25V	A B
C255	VCKYTV1HB221K	220 pF,50V	A A
C257	VCKYTQ1ED104M	0.1 μF,25V	A C
C259	VCKYTV1ED333M	0.033 μF,25V	A B
C275	VCCRTV1HH102J	0.001 μF (RH),50V	A A
C278	VCKYTV1HB103K	0.01 μF,50V	A B
C279	VCKYTV1EB153K	0.015 μF,25V	A B
C280	VCKYTV1EB153K	0.015 μF,25V	A B
C281	VCKYTV1HB103K	0.01 μF,50V	A B
C282	VCKYTV1EB223K	0.022 μF,25V	A B
C284	VCKYTV1HD102M	0.001 μF,50V	A A
C503	VCKYTV1EB223K	0.022 μF,25V	A B
C504	VCKYTV1EB223K	0.022 μF,25V	A B
C505	VCKYTQ1ED104M	0.1 μF,25V	A C
C506	VCKYTQ1ED104M	0.1 μF,25V	A C
C507	VCKYTV1HB472K	0.0047 μF,50V	A A
C508	VCKYTV1HB472K	0.0047 μF,50V	A A
C509	VCKYTV1EB223K	0.022 μF,25V	A B
C510	VCKYTV1EB223K	0.022 μF,25V	A B
C511	VCKYTV1HB122K	0.0012 μF,50V	A A
C512	VCKYTV1HB122K	0.0012 μF,50V	A A
C513	VCKYTV1HB472K	0.0047 μF,50V	A A
C514	VCKYTV1HB472K	0.0047 μF,50V	A A
C515	VCKYTV1HB221K	220 pF,50V	A A
C516	VCKYTV1HB221K	220 pF,50V	A A

RESISTORS

(Unless otherwise specified, resistors are ±5%,carbon type.) (Tubular type carbon film resistor ±5% is identified the symbol TV of the part NO. VRS−TV0000000; this TV does not mean lead wire.)

	VRS-TV2AB000J	0 ohm,Chip Jumper	A A
R3	VRS-TV2AB332J	3.3 kohms,1/10W	A A
R4	VRS-TV2AB332J	3.3 kohms,1/10W	A A
R5	VRS-TV2AB224J	220 kohms,1/10W	A A
R6	VRS-TV2AB224J	220 kohms,1/10W	A A
R9	VRS-TV2AB223J	22 kohms,1/10W	A A
R11	VRS-TV2AB331J	330 ohms,1/10W	A A
R21	VRS-TV2AB332J	3.3 kohms,1/10W	A A
R22	VRS-TV2AB332J	3.3 kohms,1/10W	A A
R23	VRS-TV2AB473J	47 kohms,1/10W	A A
R24	VRS-TV2AB473J	47 kohms,1/10W	A A
R25	VRS-TV2AB224J	220 kohms,1/10W	A A
R26	VRS-TV2AB224J	220 kohms,1/10W	A A
R27	VRS-TV2AB824J	820 kohms,1/10W	A A
R28	VRS-TV2AB824J	820 kohms,1/10W	A A
R29	VRS-TV2AB103J	10 kohm,1/10W	A A

REF.NO.	PART NO.	DESCRIPTION	CODE
R30	VRS-TV2AB103J	10 kohm,1/10W	A A
R31	VRS-TV2AB472J	4.7 kohms,1/10W	A A
R32	VRS-TV2AB472J	4.7 kohms,1/10W	A A
R33	VRS-TV2AB223J	22 kohms,1/10W	A A
R34	VRS-TV2AB223J	22 kohms,1/10W	A A
R51	VRS-TV2AB472J	4.7 kohms,1/10W	A A
R52	VRS-TV2AB472J	4.7 kohms,1/10W	A A
R53	VRS-TV2AB472J	4.7 kohms,1/10W	A A
R54	VRS-TV2AB472J	4.7 kohms,1/10W	A A
R55	VRS-TV2AB154J	150 kohms,1/10W	A A
R56	VRS-TV2AB154J	150 kohms,1/10W	A A
R57	VRS-TV2AB563J	56 kohms,1/10W	A A
R58	VRS-TV2AB563J	56 kohms,1/10W	A A
R59	VRS-TV2AB4R7J	4.7 ohms,1/10W	A A
R60	VRS-TV2AB4R7J	4.7 ohms,1/10W	A A
R61	VRS-TV2AB332J	3.3 kohms,1/10W	A A
R62	VRS-TV2AB472J	4.7 kohms,1/10W	A A
R71	VRS-TV2AB103J	10 kohm,1/10W	A A
R72	VRS-TV2AB124J	120 kohms,1/10W	A A
R73	VRS-TV2AB124J	120 kohms,1/10W	A A
R74	VRS-TV2AB682J	6.8 kohms,1/10W	A A
R75	VRS-TV2AB220J	22 ohms,1/10W	A A
R77	VRS-TV2AB1R2K	1.2 ohms,1/10W	A A
R78	VRS-TV2AB1R5K	1.5 ohms,1/10W	A A
R80	VRS-TV2AB182J	1.8 kohms,1/10W	A A
R81	VRS-TV2AB222J	2.2 ohms,1/10W	A A
R82	VRS-TV2AB102J	1 kohm,1/10W	A A
R83	VRS-TV2AB221J	220 ohms,1/10W	A A
R84	VRS-TV2AB102J	1 kohm,1/10W	A A
R85	VRS-TV2AB221J	220 ohms,1/10W	A A
R87	VRS-TV2AB472J	4.7 kohms,1/10W	A A
R88	VRS-TV2AB472J	4.7 kohms,1/10W	A A
R89	VRS-TV2AB681J	680 ohms,1/10W	A A
R90	VRS-TV2AB474J	470 kohms,1/10W	A A
R91	VRS-TV2AB102J	1 kohm,1/10W	A A
R201	VRS-FM2BE102J	1 kohm,1/8W,±5%,Carbon Film Resistor	A A
R204	VRS-TV2AB101J	100 ohm,1/10W	A A
R206	VRS-TV2AB220J	22 ohms,1/10W	A A
R210	VRS-TV2AB104J	100 kohm,1/10W	A A
R240	VRS-TV2AB331J	330 ohms,1/10W	A A
R241	VRS-TV2AB470J	47 ohms,1/10W	A A
R242	VRS-TV2AB331J	330 ohms,1/10W	A A
R243	VRS-TV2AB103J	10 kohm,1/10W	A A
R244	VRS-TV2AB681J	680 ohms,1/10W	A A
R245	VRS-TV2AB331J	330 ohms,1/10W	A A
R246	VRS-TV2AB102J	1 kohm,1/10W	A A
R247	VRS-TV2AB104J	100 kohm,1/10W	A A
R248	VRS-TV2AB822J	8.2 kohms,1/10W	A A
R250	VRS-TV2AB472J	4.7 kohms,1/10W	A A
R251	VRS-TV2AB224J	220 kohms,1/10W	A A
R271	VRS-TV2AB822J	8.2 kohms,1/10W	A A
R272	VRS-TV2AB102J	1 kohm,1/10W	A A
R273	VRS-TV2AB103J	10 kohm,1/10W	A A
R274	VRS-TV2AB103J	10 kohm,1/10W	A A
R276	VRS-TV2AB223J	22 kohms,1/10W	A A
R501	VRS-TV2AB182J	1.8 kohms,1/10W	A A
R502	VRS-TV2AB182J	1.8 kohms,1/10W	A A
R503	VRS-TV2AB124J	120 kohms,1/10W	A A
R504	VRS-TV2AB124J	120 kohms,1/10W	A A
R505	VRS-TV2AB103J	10 kohm,1/10W	A A
R506	VRS-TV2AB103J	10 kohm,1/10W	A A
R507	VRS-TV2AB182J	1.8 kohms,1/10W	A A
R508	VRS-TV2AB182J	1.8 kohms,1/10W	A A
R509	VRS-TV2AB124J	120 kohms,1/10W	A A
R510	VRS-TV2AB124J	120 kohms,1/10W	A A
R511	VRS-TV2AB103J	10 kohm,1/10W	A A
R512	VRS-TV2AB103J	10 kohm,1/10W	A A
R513	VRS-TV2AB182J	1.8 kohms,1/10W	A A
R514	VRS-TV2AB182J	1.8 kohms,1/10W	A A
R515	VRS-TV2AB124J	120 kohms,1/10W	A A
R516	VRS-TV2AB124J	120 kohms,1/10W	A A
R517	VRS-TV2AB103J	10 kohms,1/10W	A A
R518	VRS-TV2AB103J	10 kohms,1/10W	A A
R519	VRS-TV2AB182J	1.8 kohms,1/10W	A A
R520	VRS-TV2AB182J	1.8 kohms,1/10W	A A
R521	VRS-TV2AB124J	120 kohms,1/10W	A A
R522	VRS-TV2AB124J	120 kohms,1/10W	A A
R523	VRS-TV2AB103J	10 kohm,1/10W	A A
R524	VRS-TV2AB103J	10 kohm,1/10W	A A

OTHER CIRCUITRY PARTS

REF.NO.	PART NO.	DESCRIPTION	CODE
J1	QJAKJ0155AFZZ	Jack,Headphones	A E
J3	QJAKC0065AFZZ	Jack,External DC Power Supply	A D
M1	RMŌTV0177AFZZ	Motor	B B
SOL1	RPLU-0181AFZZ	Plunger	A M
SW1	QSW-F0202AFZZ	Switch,Leaf Type	A C
SW2(A,B)	QSW-S0438AFZZ	Switch,Slide Type	A D
SW3(A,B)	QSW-S0473AFZZ	Switch,Slide Type	A D
SW4	QPWBH0015AFZZ	Switch,Push Type P.W.B. Assembly	—
SW5	QSW-F0202AFZZ	Switch,Leaf Type	A C
SW6	QSW-F0201AFZZ	Switch,Leaf Type	A D
SW201(A～D)	QSW-S0474AFZZ	Switch,Slide Type	A F

MECHANICAL PARTS

REF.NO.	PART NO.	DESCRIPTION	CODE
1	JBTN-0223AFZZ	Button,Play/Stop	A D
2	JBTN-0224AFZZ	Button,Fast Forward	A D
3	LANGF0894AFZZ	Bracket,Flywheel	A D
4	LCHSM0547AFZZ	Main Chassis	—
5	LCHSS0207AFZZ	Sub Chassis (Left)	A D
6	LCHSS0208AFZZ	Sub Chassis (Right)	A D
7	LHLDB1152AFSA	Holder,Battery	A C
8	LHLDX3073AFZZ	Holder,Cassette Assembly	A K
9	LSLVM0182AFFW	Sleeve,Gear Center	A A
10	LSLVM0183AFFW	Sleeve,Action Gear	A B
11	LSLVM0184AFFD	Sleeve,Sub Chassis Action Lever	A A
12	LSLVM0185AFFW	Sleeve,Fast Forward Lever	A A
13	LSLVM0193AFFW	Main Sleeve	A B
14	LSLVM0194AFFW	Sleeve,Fast Forward/ Rewind Lever	A B
15	MLEVF1695AFZZ	Lever,Program Selector	A C
16	MLEVF1696AFZZ	Lever,Playback Release (Left)	A C
17	MLEVF1697AFZZ	Lever,Playback Release (Right)	A C
18	MLEVF1698AFZZ	Lever,Fast Forward Joint	A C
19	MLEVF1699AFZZ	Lever,Plunger Joint	A C
20	MLEVF1770AFZZ	Lever,Fast Forward/ Rewind Switch	A B
21	MLEVF1701AFZZ	Lever,Sub Chassis Action	A C
22	MLEVF1702AFZZ	Lever,Lock	A D
23	MLEVF1703AFZZ	Lever,Fast Forward	A C
24	MLEVF1704AFZZ	Lever,Rewind	A C
25	MLEVF1771AFZZ	Lever,Playback Joint	A B
26	MSPRC0503AFFJ	Spring,Back Tension (Supply)	A A
27	MSPRC0504AFFJ	Spring,Head Azimuth Adjust	A A
28	MSPRD0608AFFJ	Spring,Playback Joint Lever	A A
29	MSPRD0609AFFJ	Spring,Pinch Roller (Left)	A A
30	MSPRD0610AFFJ	Spring,Pinch Roller (Right)	A A
31	MSPRP0380AFFJ	Spring,Cassette Holder Opening	A A
32	MSPRP0381AFFJ	Spring,Cassette Pressing	A A
33	MSPRT1102AFFJ	Spring,Sub Chassis Return	A A
34	MSPRT1103AFFJ	Spring,Fast Forward Gear	A A
36	MSPRT1106AFFJ	Spring,Plunger Joint Lever	A A
37	MSPRT1107AFFJ	Spring,Playback Action	A A
38	NBLTK0310AFZZ	Belt,Flywheel Drive	A B
39	NBRGC0105AFZZ	Capstan Metal Assembly	A D
40	NDAiR0188AFZZ	Turntable,Supply	A B
41	NDAiR0189AFZZ	Turntable,Take Up	A C
42	NFLYC0126AFZZ	Flywheel (Left)	A G
43	NFLYC0127AFZZ	Flywheel (Right)	A G
44	NGERH0160AFZZ	Gear,Center	A B
45	NGERH0161AFZZ	Gear,Action	A B
46	NGERH0162AFZZ	Gear,Cam Action	A B
47	NGERH0163AFZZ	Gear,Cam	A B
48	NGERH0164AFZZ	Slip Roller Assembly	A E
49	NGERH0165AFZZ	Gear,Fast Forward Assembly	A D
50	NGERH0166AFZZ	Gear,Rewind Assembly	A E
51	NGERH0167AFZZ	Gear,Playback Assembly	A E
52	NPLYB0078AFZZ	Pulley	A A
53	NRŌLY0068AFZZ	Pinch Roller (Left)	A E
54	NRŌLY0069AFZZ	Pinch Roller (Right)	A E
55	RHEDF0092AFZZ	Head,Playback	A U
58	PTPEC0059AFZZ	Ribbon,Battery Eject	A B
59	LANGT1400AFZZ	Bracket,Lever	A B
60	LSLVM0201AFFN	Main Sleeve (B)	A B
61	LSLVM0203AFFW	Sleeve,Plunger Lever	A B
62	MSPRC0537AFFJ	Spring,Back Tension (Take up)	A A
63	MSPRT1108AFFJ	Spring,Lock	A A
64	PSHET0033AFZZ	Sheet,Switch	A B
502	LX-BZ0511AFZZ	Screw,ϕ1.4×2.5mm	A A
503	LX-BZ0518AFZZ	Screw,ϕ1.7×1.8mm	A A
504	LX-BZ0519AFZZ	Screw,ϕ1.7×2.5mm	A A
505	LX-BZ0520AFZZ	Screw,ϕ1.7×3.5mm	A A
506	LX-WZ1064AFZZ	Washer,ϕ1.2×ϕ3.2×0.25mm	A A
507	LX-WZ1090AFZZ	Washer,ϕ1.8×ϕ3.2×0.13mm	A A
508	LX-WZ1091AFZZ	Washer,ϕ2.1×ϕ5×0.25mm	A A
509	LX-WZ3089AFZZ	Washer,ϕ1.8×ϕ3.8×0.05mm	A A
513	LX-WZ9064AFZZ	Washer,ϕ1.5×ϕ3.8×0.5mm	A A
514	XAPSF14P01000	Screw,ϕ1.4×1.0mm	A A
516	XAPSN17P01400	Screw,ϕ1.7×1.4mm	A A
517	XASSF14P04500	Screw,ϕ1.4×4.5mm	A A
518	XASSF17P03000	Screw,ϕ1.7×3.0mm	A A
519	XASSN14P02500	Screw,ϕ1.4×2.5mm	A A
520	XASSN17P02000	Screw,ϕ1.7×2.0mm	A A
521	XREUJ15-04000	Stop Ring,E-Type,ϕ1.5×0.4mm	A A
522	XREUJ20-04000	Stop Ring,E-Type,ϕ2×0.4mm	A A
524	XAPSF14P03000	Screw,ϕ1.4×3.0mm	A A
525	XAPSN14P04500	Screw,ϕ1.4×4.5mm	A A
526	XWHNZ31-02560	Washer,ϕ3.1×ϕ6.0×0.25mm	A A

CABINET PARTS

REF.NO.	PART NO.	DESCRIPTION	CODE
101	CSPRT1158AF01	Dial Stringing Assembly	A E
102	GCŌVA1609AFSA	Rear Cabinet (R)	A G
102	GCŌVA1609AFSB	Rear Cabinet (BL)	A G
102	GCŌVA1609AFSC	Rear Cabinet (BK)	A G
103	GCŌVA1617AFSA	Cassette Holder Assembly (R)	A R
103	GCŌVA1617AFSB	Cassette Holder Assembly (BL)	A R
103	GCŌVA1617AFSC	Cassette Holder Assembly (BK)	A R
103-1	————	Cassette Holder	—
103-2	HiNDM1645AFSA	Indication Plate,Control (R)	A K
103-2	HiNDM1645AFSB	Indication Plate,Control (BL)	A K
103-2	HiNDM1645AFSC	Indication Plate,Control (BK)	A K
103-3	HPNLH1120AFSA	Decoration Plate,Graphic Equalizer	A E
103-4	HPNLH1125AFSA	Decoration Plate,Auto Reverse	A E
103-5	LX-NZ0169AFZZ	Nut,Graphic Equalizer	A B
104	GCŌVA1560AFSA	Cover,Tuner	A C
105	GCŌVA1568AFSA	Cover,Graphic Equalizer Knob	A B
106	GCŌVA1575AFSA	Cover,Band/Tape Selector Knob	A A
107	GFTAB1160AFSF	Battery Compartment Lid (BL)	A C
107	GFTAB1160AFSG	Battery Compartment Lid (BK)	A C
107	GFTAB1160AFSi	Battery Compartment Lid (R)	A C
108	HDECB0272AFSA	Decoration Plate, Mechanism	A E
111	HiNDP1385AFSA	Label,Specifications E(R)	A B
111	HiNDP1386AFSA	Label,Specifications E(BL)	A B
111	HiNDP1387AFSA	Label,Specifications E(BK)	A B
111	HiNDP1388AFSA	Label,Specifications H(R)	A B
111	HiNDP1389AFSA	Label,Specifications H(BL)	A B
111	HiNDP1390AFSA	Label,Specifications H(BK)	A B
112	HSSND0357AFSA	Dial Pointer	A C
113	JKNBB0086AFSA	Knob,Volume	A C
114	JKNBM0564AFSA	Knob,Dolby NR Selector	A B
115	JKNBM0611AFSA	Knob,Reverse Selector	A B
116	JKNBM0612AFSA	Knob,Program	A B
118	JKNBP0233AFSC	Knob,Cassette Holder Lock (BL)	A B
118	JKNBP0233AFSD	Knob,Cassette Holder Lock (BK)	A B
118	JKNBP0233AFSE	Knob,Cassette Holder Lock (R)	A B
120	LHLDF1341AFSA	Tuner Frame Assembly	A M
120-1	————	Tuner Frame	—
120-2	JKNBN0570AFSA	Knob,Tuning	A C
120-3	LX-BZ0526AFFC	Screw,ϕ1.4×2.0mm	A A
120-4	NPLYB0080AFZZ	Pulley	A A
120-5	NSFTD0248AFZZ	Shaft,Tuning Knob	A E
120-6	NSFTT0362AFZZ	Shaft,Pulley	A B
120-8	XWHJZ31-01360	Washer,ϕ3.1×ϕ6×0.13mm	A A
121	LRALM0059AFFW	Bracket,Cassette Holder Lock Knob	A B
123	MSPRC0495AFFJ	Spring,Cassette Holder Lock Knob	A A
124	MSPRC0548AFFJ	Spring,Battery Terminal(+)	A A
125	MSPRC0549AFFJ	Spring,Battery Terminal(-)	A B
126	MSPRC0550AFFJ	Spring,Program Selector Button	A A
127	MSPRT1158AFFJ	Spring,Durm	A A
132	PCŌVP1235AFSA	Cover,Graphic Equalizer P.W.B.	A D
133	PCUSS0279AFZZ	Cushion,Battery Compartment Lid	A A
134	PSHET0024AFZZ	Shield Plate,Graphic Equalizer P.W.B.	A A
135	PSHET0026AFZZ	Shield Plate	A C
136	PSPAZ0187AFZZ	Spacer,Photo Reflector	A B
602	LX-AZ0005AFFF	Screw,ϕ1.4×2.0mm	A A
603	LX-BZ0526AFFC	Screw,ϕ1.4×2.0mm	A A
605	LX-BZ0533AFFF	Screw,ϕ2.2×13mm	A B
606	LX-BZ0534AFFF	Screw,ϕ2.2×6.0mm	A A
607	LX-BZ0535AFFF	Screw,ϕ1.7×3.0mm (BK)	A A

REF.NO.	PART NO.	DESCRIPTION	CODE
607	LX-BZ0535AF02	Screw, ϕ1.7×3.0mm (R)	A A
607	LX-BZ0535AF06	Screw, ϕ1.7×3.0mm (BL)	A A
608	LX-BZ0536AFFC	Screw, ϕ1.4×4.0mm	A A
609	LX-BZ0537AFFF	Screw, ϕ1.7×2.0mm (BK)	A A
609	LX-BZ0537AF02	Screw, ϕ1.7×2.0mm (R)	A A
609	LX-BZ0537AF06	Screw, ϕ1.7×2.0mm (BL)	A A
610	LX-BZ0544AFFF	Screw, ϕ1.7×2.5mm	A A
611	XCPSD20P04000	Screw, ϕ2×4.0mm	A A
614	XWSPN14-05000	Washer, ϕ1.4×0.5mm	A A

ACCESSORIES/PACKING PARTS

	HDECQ0281AFSA	Belt Clip	A C
	SPAKA1450AFZZ	Packing Add,Bottom	A F
	SPAKA1451AFZZ	Packing Add,Top	A B
	SPAKC3573AFZZ	Packing Case E(R)	A G
	SPAKC3574AFZZ	Packing Case E(BL)	A G
	SPAKC3575AFZZ	Packing Case E(BK)	A G
	SPAKC3578AFZZ	Packing Case H(BK)	A G
	SPAKC3576AFZZ	Packing Case H(R)	A G
	SPAKC3577AFZZ	Packing Case H(BL)	A G
	SPAKP0567AFZZ	Polyethylene Bag,Unit	A A
	SPAKX1539AFZZ	Sheet Cover	A A
	SPAKX1595AFZZ	Packing Add,Bottom	A B
	SSAKA0019AFZZ	Polyethylene Bag, Operation Manual	A A
	TGANE1117AFZZ	Warranty Card,E	A B
	TGANG1054AFZZ	Warranty Card,H	A A
	TiNSZ0826AFZZ	Operation Manual	A H
	TLABJ0006AFZZ	Label, "MADE IN JAPAN", E	A A
	TTAGH0391AFZZ	Tag	A C
	UBATU0066AFZZ	Battery	A C
	RPHōH0062AFZZ	Headphones	A W
	GPAD-0053AFSA	Ear Pad	A C

P.W.B. ASSEMBLY (Not Replacement Item)

PWB-A	DKEND0521AF01	Main,E	—
PWB-A	DKEND0539AF01	Main,H	—
PWB-B	DKEND0435AF02	Graphic Equalizer	—

SHARP

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